

FARM BUSINESS MANAGEMENT

**STANDARDS FOR MEASURING
BUSINESS SUCCESS**

FINANCIAL AND PHYSICAL

PREPARED BY

ALLAN E. LINES

FOR

**AGRICULTURAL LENDERS SCHOOL
OCTOBER 1988**

CONTROLLABLE FACTORS AFFECTING FARM PROFIT

SIZE OF BUSINESS

RATES OF PRODUCTION

LABOR EFFICIENCY

CAPITAL EFFICIENCY

COST CONTROL

MARKETING / PURCHASING

DISTRIBUTION OF LABOR INCOME

		FARMS	
INCOME/OPERATOR		NUMBER	%
LESS THAN	-\$50,000	11	2
- \$50,000 TO	- 40,001	4	1
- 40,000 TO	- 30,001	8	1
- 30,000 TO	- 20,001	33	6
- 20,000 TO	- 10,001	62	11
- 10,000 TO	- 1	136	24
0 TO	9,999	152	27
10,000 TO	19,999	82	14
20,000 TO	29,999	50	9
30,000 TO	39,999	18	3
40,000 OR MORE		16	3

NEW YORK FARM BUSINESS SUMMARY

NOTICE:

- A) 1/2 OF FARMS IN \pm \$10,000 RANGE
- B) A RATHER NORMAL (BELL-SHAPED) DISTRIBUTION
- C) 2% LOST MORE THAN \$50,000
3% EARNED MORE THAN \$40,000
- D) INCOME PER OPERATOR NOT PER FARM

MEASURES OF SIZE

INPUT MEASURES

ACRES

CAPITAL

LABOR

ANIMALS

OUTPUT MEASURES

VOLUME

INCOME

COWS PER FARM VS. LABOR INCOME

NUMBER OF COWS	LABOR INCOME PER OPERATOR
UNDER 40	\$ 812
40 TO 54	- 19
55 TO 69	3,225
70 TO 84	3,064
85 TO 99	2,152
100 TO 149	4,073
150 TO 199	-3,577
200 TO 249	27,218
250 OR MORE	45,479

NEW YORK FARM BUSINESS SUMMARY

NOT A PERFECT RELATIONSHIP BUT CAN
EASILY SEE MESSAGE

--MORE COWS PROBABLY MEANS HIGHER
EARNINGS PER PERSON--

PRODUCTION RATE MEASURES

CROPS

BUSHEL PER ACRE
TONS PER ACRE

ANIMALS

POUNDS PER COW
PIGS PER COW
CALVES PER COW
EGGS PER HEN
LAMBS PER EWE

TRYING TO DETERMINE HOW
EFFICIENTLY A FARM IS USING
AN INPUT - -
LAND AND/ OR ANIMALS

INDIRECTLY MEASURING HOW
EFFICIENTLY CAPITAL AND LABOR
ARE BEING USED

MILK SOLD PER COW VS. LABOR INCOME

POUNDS SOLD PER COW	LABOR INCOME PER OPERATOR
UNDER 11,000	\$ -1,924
11,000 TO 11,999	5,492
12,000 TO 12,999	7,908
13,000 TO 13,999	15,624
14,000 TO 14,999	15,311
15,000 TO 15,999	22,074
16,000 TO 16,999	26,851
17,000 TO 17,999	26,668
18,000 OR MORE	49,864

NEW YORK FARM BUSINESS SUMMARY

- NOTICE STRONG RELATIONSHIP
- HIGHER RATE OF PRODUCTION PROBABLY
MEANS HIGHER EARNINGS PER PERSON

LABOR EFFICIENCY MEASURES

INPUT MEASURES

ACRES PER WORKER

COWS PER WORKER

SOWS PER WORKER

OUTPUT MEASURES

BUSHEL PER WORKER

POUNDS PER WORKER

HOGS PER WORKER

MILK SOLD PER WORKER VS. LABOR INCOME

POUNDS OF MILK SOLD/WORKER	LABOR INCOME PER OPERATOR
UNDER 250,000	\$-3,985
250,000 TO 299,999	-4,001
300,000 TO 349,999	-957
350,000 TO 399,999	2,010
400,000 TO 449,999	3,319
450,000 TO 499,999	2,949
500,000 TO 599,999	7,271
600,000 OR MORE	31,180

NEW YORK FARM BUSINESS SUMMARIES

- MEASURING OUTPUT PER WORKER
- NOT A PERFECT RELATIONSHIP
- HIGHER OUTPUT PER WORKER PROBABLY MEANS HIGHER PROFIT

CAPITAL EFFICIENCY MEASURES

INPUT MEASURES

CAPITAL PER ACRE

CAPITAL PER COW

CAPITAL PER WORKER

OUTPUT MEASURES

CAPITAL PER UNIT SOLD

CAPITAL TURNOVER

CAPITAL TURNOVER VS. LABOR INCOME

CAPITAL TURNOVER RATE IN YEARS	LABOR INCOME PER OPERATOR
LESS THAN 1.5	\$ 23,365
1.5 TO 1.99	20,036
2.0 TO 2.49	3,036
2.5 TO 2.99	- 662
3.0 TO 3.49	- 1,843
3.5 OR MORE	- 4,766

NEW YORK FARM BUSINESS SUMMARIES

- NOTICE STRONG RELATIONSHIP
- FASTER CAPITAL TURNOVER PROBABLY
MEANS HIGHER PROFIT

COSTS THAT NEED CONTROL

FIXED COSTS

DEPRECIATION

INTEREST

VARIABLE COSTS

LABOR

FEED

FERTILIZER

REPAIRS

SEED

.

.

.

FEED EXPENSE VS. LABOR INCOME

% FEED IS
OF MILK

LABOR INCOME
PER OPERATOR

OVER 40%	\$ - 1,591
35 TO 39	-4,541
30 TO 34	2,700
25 TO 29	5,530
20 TO 24	6,489
UNDER 20%	3,031

NEW YORK FARM BUSINESS SUMMARY

- FEED IS ONLY ONE BUT BIG EXPENSE
- CONTROL -- NOT TOO MUCH/
NOT TOO LITTLE

COMBINATION OF FACTORS VS. LABOR INCOME

NUMBER OF FACTORS ABOVE AVERAGE	LABOR INCOME PER OPERATOR
4	\$13,000
3	10,200
2	500
1	- 1,300
0	-2,100

NEW YORK FARM BUSINESS SUMMARY

FACTORS: SIZE, RATE OF PRODUCTION,
LABOR EFFICIENCY, COST CONTROL

LESSON: A) PAY ATTENTION TO ALL FACTORS
B) DON'T CONCENTRATE ON ONE
AT EXPENSE OF OTHERS

SIZE BENCHMARKS

MINIMUM

WORK FOR TWO PEOPLE

INCOME FOR TWO FAMILIES

UTILIZE ONE SET BUILDINGS

UTILIZE ONE SET EQUIPMENT

MAXIMUM

UTILIZE MANAGEMENT ABILITY

ENTERPRISE SIZE STANDARDS

DAIRY --- 70 TO 75 COWS

(WITH 200-250 ACRES OF CROPS)
(WITH 65 TO 70 HEIFERS)

CROPS --- 1400 TO 1500 ACRES

(ALL BELOW WITH 750 ACRES OF CROPS)

FEEDER PIGS --- 150 TO 175 SOWS

FARROW-FINISH --- 100 TO 125 SOWS

FINISH HOGS --- 4000 - 5000 HEAD

FED BEEF --- 800 - 900 HEAD

NOT HARD AND FAST

DEPENDS ON DEGREE OF CAPITAL LABOR
SUBSTITUTION

PRODUCTION RATE STANDARDS

CROPS (RATES PER ACRE)

CORN	125 BU.	CORN SILAGE	20 TN.
SOYBEANS	42 BU.	ALFALFA HAY	5.5 TN.
WHEAT	65 BU.	MIXED HAY	4.0 TN.

LIVESTOCK (RATES PER YEAR)

DAIRY	16,000 LB.	SOWS	16 PIGS
BEEF COW	500 LB. CALF	EWES	1.75 LAMBS

-
- MORE HARD AND FAST THAN SIZE STANDARDS
 - GOOD TARGETS REGARDLESS OF SIZE

LABOR EFFICIENCY STANDARDS

CROPS (RATE PER PERSON PER YEAR)

CORN	90,000 BU.
SOYBEANS	40,000 BU.
WHEAT	65,000 BU.

LIVESTOCK (RATE PER PERSON PER YEAR)

DAIRY	600,000 LB.
FAR/FIN	400,000 LB.
FDR/PIGS	2,500 PIGS
FIN/HOGS	1,000,000 LB.
BEEF COWS	250,000 LB.
FED BEEF	900,000 LB.
EWES	1,300 LAMBS

NOT HARD AND FAST BUT GOOD GOALS

DEPENDS SOMEWHAT ON CAPITAL - LABOR
SUBSTITUTION AGAIN

CAPITAL EFFICIENCY STANDARDS

CROPS (TURNOVER RATE--YEARS)

GRAINS	4.0 - 5.0
--------	-----------

LIVESTOCK (TURNOVER RATE--YEARS)

DAIRY	2.0 - 2.5
-------	-----------

FAR/FIN	1.5 - 2.0
---------	-----------

FDR/PIG	1.0 - 1.5
---------	-----------

FIN/HOG	.3 - .5
---------	---------

FED BEEF	.2 - .3
----------	---------

SHORTER IS BETTER

ENTERPRISES REQUIRING LAND
INVESTMENT HAVE LONGER TURNOVER.

CAPITAL EFFICIENCY STANDARDS

CROPS

Grains \$ 150 Per Acre (Machinery)

LIVESTOCK

Dairy \$6,000 Total Capital/Cow
 \$1,000 Mach/Equip Inv./Cow
 \$ 40 Total Capital/Cwt. Sold

Far/Fin \$ 40 Total Capital/Cwt. Sold

Fdr/Pig \$ 55 Total Capital/Pig Sold

Fin/Hog \$ 45 Total Capital/Cwt. Sold

Fed Beef \$ 60 Total Capital/Cwt. Sold

NOT HARD AND FAST

DEPENDS ON CAPITAL/LABOR SUBSTITUTION

GOOD GUIDES, HOWEVER.

COST STANDARDS

CROPS (TOTAL COST PER BUSHEL)

CORN	\$ 2.25
SOYBEANS	\$ 5.50
WHEAT	\$ 3.25

LIVESTOCK (TOTAL COST PER CWT.)

DAIRY	\$ 11.50
FAR/FIN	\$ 40.00
FDR/PIGS	\$ 65.00
FED BEEF	\$ 60.00

PRODUCERS WITH THESE COSTS ARE
SETTING PACE OTHERS MUST FOLLOW.

IF NOT IN LINE, STUDY MAJOR COSTS:

FEED
MACHINERY
INTEREST

LABOR
DEPRECIATION
ETC.

FINANCIAL STANDARDS

GRAIN CROPS

\$600 TOTAL DEBT/OWNED ACRE
\$ 90 DEBT AND/OR RENT PAYMENT/ACRE
25% DEBT/ASSET RATIO

DAIRY

\$1500 TOTAL DEBT PER COW
\$25 TO \$30 DEBT PAYMENT/COW/MONTH
25% DEBT/ASSET RATIO

FARROW-FINISH

\$1000 TOTAL DEBT PER SOW
\$15 TO \$20 DEBT PAYMENT/SOW/MONTH
50% DEBT/ASSET RATIO

FEEDER PIG PRODUCTION

\$500 TOTAL DEBT PER SOW
\$10 TO \$15 DEBT PAYMENT/SOW/MONTH
50% DEBT/ASSET RATIO

REASONABLE DEBT LOADS UNDER GOOD
MANAGEMENT FOR POSITIVE CASH FLOW

SUMMARY

MAJOR RESOURCES USED IN FARM BUSINESS

LAND

LABOR

CAPITAL

MANAGEMENT

**PROFIT DEPENDS ON HOW
WELL EACH IS USED**

**FIND ANSWERS TO THE
IMPORTANT QUESTIONS**

HOW BIG?

CAPITAL EFFICIENCY?

PRODUCTION RATE?

PRODUCTION COST?

LABOR EFFICIENCY?

MARKETING SKILL?

SUMMARY

**ANSWERS TO THESE QUESTIONS ALONG
WITH SUPPORTING DETAIL WILL HELP**

FIND STRENGTHS AND WEAKNESSES

**MAKE GENERAL CONCLUSIONS
ABOUT PROFITABILITY**

COMBINE THIS WITH DEBT INFORMATION TO

**MAKE JUDGEMENTS ABOUT
FEASIBILITY**